



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**RBE332A94-3400-03-23**  
**Job Sheet 191129**



Part No: RBE332A94-3400-03-23

Job Qty: 5 pcs

Part Name: Standoff



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/21/19

Job Tracking No:

Due Date: 3/22/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBE332A94-3400-03 Rev A IPP Rev. A 19.02.19 New issue DP Verify DD

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation              | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier    |           | Sign-off |
|-------|------------------------|-------|------------|----------|-----------|---------|------------------------|-----------|----------|
|       |                        |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier  | Lead Time |          |
| 100   | Conventional Lathe - 1 | 5 pcs | 3/22/19    |          | 0.00      | 2.50    | Conventional Lathe - 1 |           |          |
|       |                        |       |            |          |           |         | Conventional Lathe - 2 |           |          |
| 110   | QC 2                   | 5 pcs | 3/22/19    |          | 0.00      | 0.00    | QC 2 - 1               |           |          |
|       |                        |       |            |          |           |         | QC 2 - 12              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 14              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 17              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 19              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 2               |           |          |
|       |                        |       |            |          |           |         | QC 2 - 20              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 22              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 23              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 25              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 32              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 33              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 35              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 39              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 4               |           |          |
|       |                        |       |            |          |           |         | QC 2 - 40              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 44              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 45              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 48              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 49              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 50              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 51              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 52              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 54              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 56              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 57              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 62              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 63              |           |          |
|       |                        |       |            |          |           |         | QC 2 - 8               |           |          |



Container No: S161311



Part: RBE332A94 - 3400 - 03 - 23

Job No: 191129

Serial No/Batch: S161311

Revision: A

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

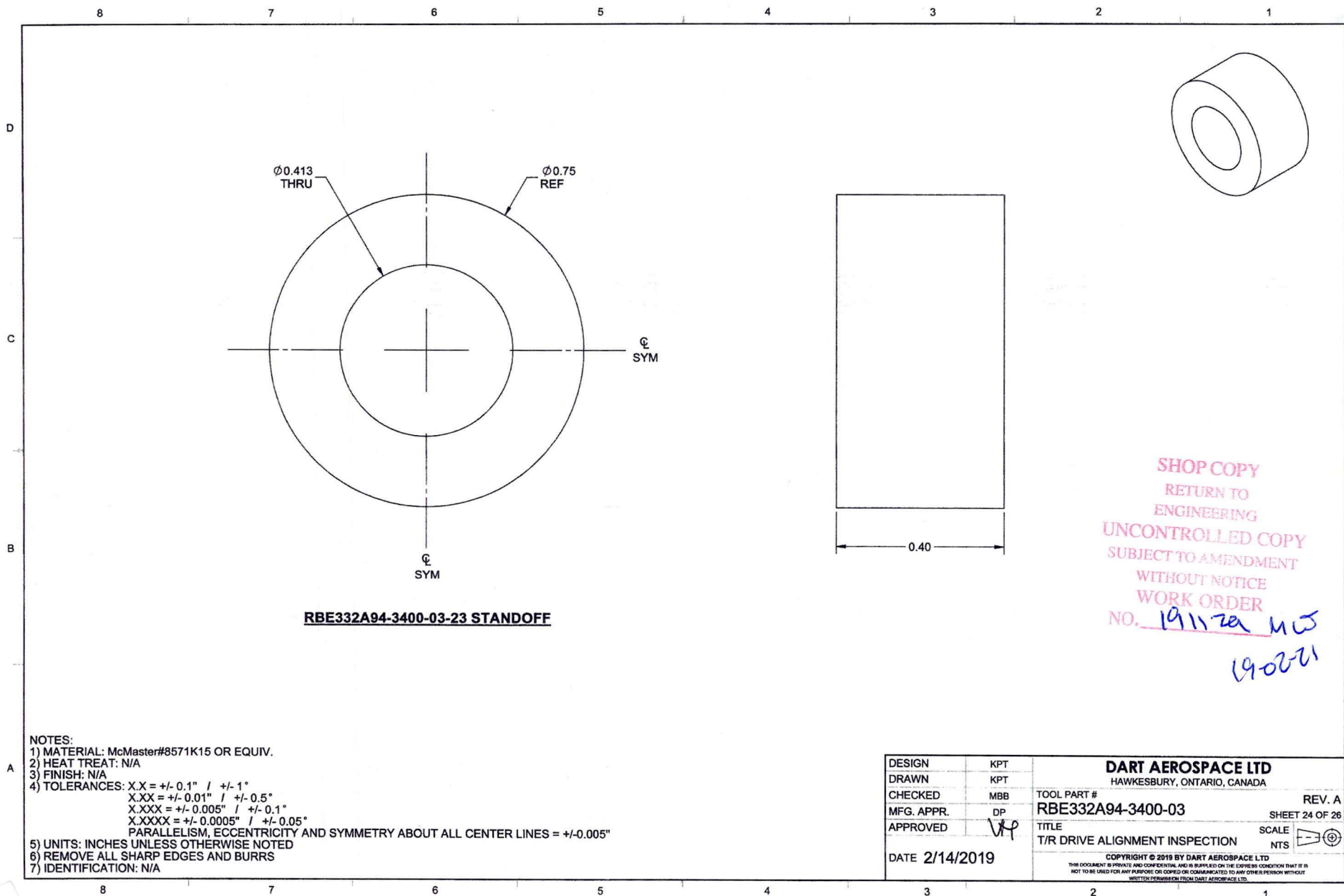
Date: 03/11/19

|                                             |                                        |                 |                            |                  |                       |              |
|---------------------------------------------|----------------------------------------|-----------------|----------------------------|------------------|-----------------------|--------------|
| 120                                         | QC 8                                   | 5 pcs           | 3/22/19                    | 0.00 0.00        | QC 8 - 12             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 14             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 17             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 20             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 25             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 3              |              |
|                                             |                                        |                 |                            |                  | QC 8 - 32             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 33             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 35             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 39             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 4              |              |
|                                             |                                        |                 |                            |                  | QC 8 - 44             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 45             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 49             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 58             |              |
|                                             |                                        |                 |                            |                  | QC 8 - 8              | B-a 19-03-19 |
|                                             |                                        |                 |                            |                  | QC 8 - 9              |              |
|                                             |                                        |                 |                            |                  | QC 8 - 68             |              |
| 130                                         | Packaging 3-1 - Stock - B4B            | 5 pcs           | 3/22/19                    | 0.00 0.00        | Packaging 3 - 1 - B4B |              |
|                                             |                                        |                 |                            |                  | Packaging 3 - 2 - B4B |              |
|                                             |                                        |                 |                            |                  | Packaging 3 - 3 - B4B | DAS          |
|                                             |                                        |                 |                            |                  | Packaging 3 - 4 - B4B | 28           |
|                                             |                                        |                 |                            |                  | Packaging 3 - 5 - B4B | 9-89         |
| 140                                         | QC 21 - SA                             | 5 pcs           | 3/22/19                    | 0.00 0.00        | QC 21 - SA - 21       |              |
|                                             |                                        |                 |                            |                  | QC 21 - SA - 70       | DAS          |
|                                             |                                        |                 |                            |                  |                       | 21           |
|                                             |                                        |                 |                            |                  |                       | 9-89         |
| Part Op 100 - 1-Machine as per DWG. 2-Debur |                                        |                 |                            |                  |                       |              |
| Descriptions: 130 - .                       |                                        |                 |                            |                  |                       |              |
| <b>Job BOM</b>                              |                                        |                 |                            |                  |                       |              |
| <b>Part / Item</b>                          | <b>Component Name</b>                  | <b>Quantity</b> | <b>Operation</b>           | <b>Container</b> |                       |              |
| 8571K15                                     | Clear Polycarbonate Rod, 3/4" Diameter | .2000 (.04 ea)  | 100-Conventional Lathe - 1 | S156841          |                       |              |
| <b>Job Allocations</b>                      |                                        |                 |                            |                  |                       |              |
| <b>Operation</b>                            | <b>Component Part</b>                  | <b>Required</b> | <b>Inventory</b>           | <b>Allocated</b> |                       |              |
| 100-Conventional Lathe - 1                  | 8571K15                                | 0               | 0                          | 0                |                       |              |
| <b>Part Specifications</b>                  |                                        |                 |                            |                  |                       |              |
| Specifications could not be found.          |                                        |                 |                            |                  |                       |              |

Plex 2/21/19 1:21 PM Dart.lajeunesse.marie







SHOP COPY  
 RETURN TO  
 ENGINEERING  
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 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 19112a MJS  
 190221

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QS1042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |

**Certification**

Date: 03/08/2019

Entry Date: 03/01/2019

Page: 1 of 1

**To:**DART AEROSPACE LTD.  
1270 ABERDEEN ST

Purchase Order No.: PO042723

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

| Quantity | Part Number / Part Name / Part Description                                                                                      | Pounds |
|----------|---------------------------------------------------------------------------------------------------------------------------------|--------|
| 13       | 13 PCS MATERIAL 4140<br>ANNEAL AND HEAT TREAT TO 35-40RC<br>SANDBLAST, BLACK OXIDE, C OF C, PRT# RBE105-14181W3-11, JOB# 188784 | 2      |

| Insp. Type | Scale | Minimum | Maximum | Number | Other |
|------------|-------|---------|---------|--------|-------|
|------------|-------|---------|---------|--------|-------|

**Customer Requirements:**

Harden rockwell

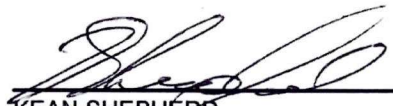
**Results:**

Harden ROCKWE 35. 40. 40. TESTED AS PER SAMPLING PLAN

HEAT TREATED TO 40 RC AS PER CUSTOMER REQUEST

BLACK OXIDE AS PER CUSTOMER REQUEST

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY). ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER. IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.

  
KEAN SHEPHERD  
QUALITY CONTROL  
ATLANTIC HEAT TREATING 2001 LTD